

# Taking Back The Web With Haketilo

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# Project Developers

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# Internet Versus Web

## **What is the internet?**

The global network of interconnected computers

## **What is the Web?**

A collection of billions of interlinked websites that can be accessed through a web browser

# The World Wide Web Is Born

**1991:** Tim Berners Lee creates the Web

Request:

```
GET /myawesomepage.html
```

Response:

```
<html>  
This is my awesome webpage!  
</html>
```

# The World Wide Web Is Born

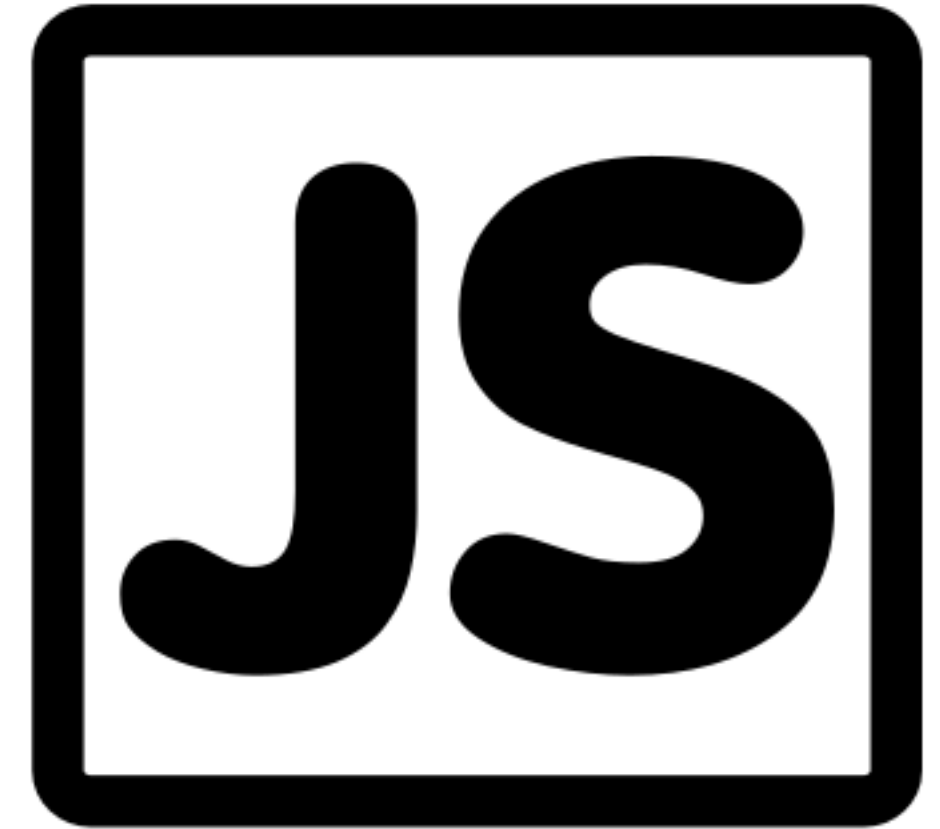
**1993:** The Web gains popularity

**1991-1995:** The Web quickly gains new features leading to incompatibility

**1994:** The World Wide Web Consortium is founded

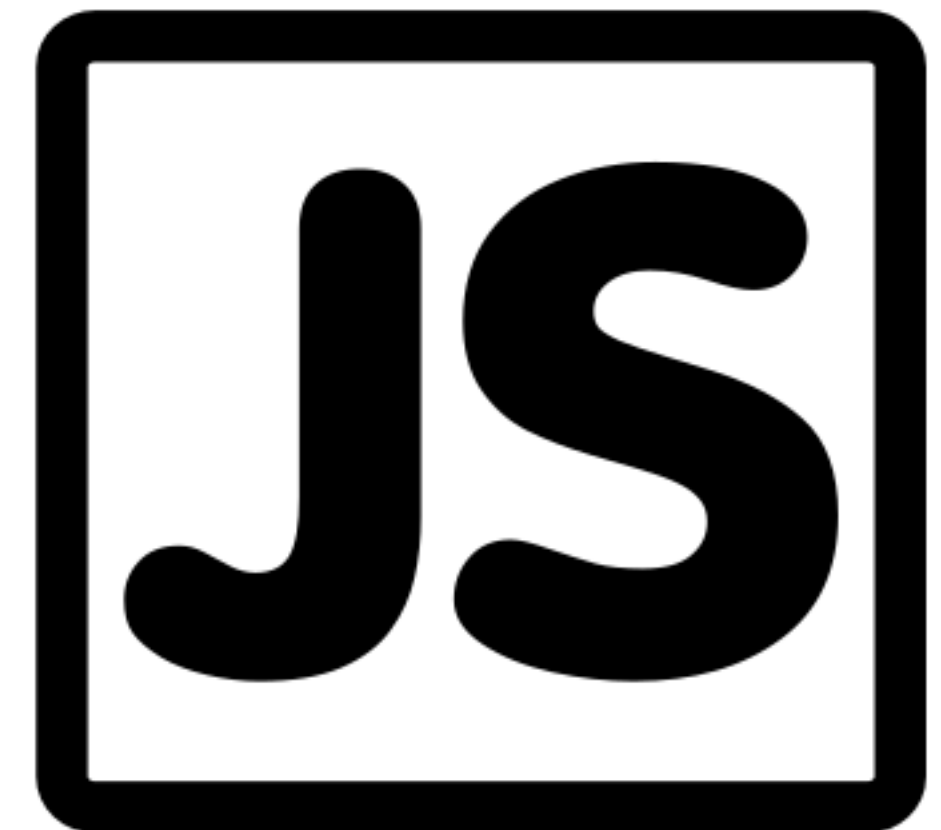
# JavaScript Is Born

- 1995:** Netscape Navigator adds a scripting language
- 1997:** JavaScript becomes an official part of the Web
- 1997-now:** JavaScript gains features, becoming a full-fledged programming language
- 2009:** Richard Stallman publishes “The JavaScript Trap”



# Free Versus Proprietary JavaScript

	Free JavaScript	Proprietary JavaScript
Has the four freedoms	✓	✗
User controls their browser	✓	✗

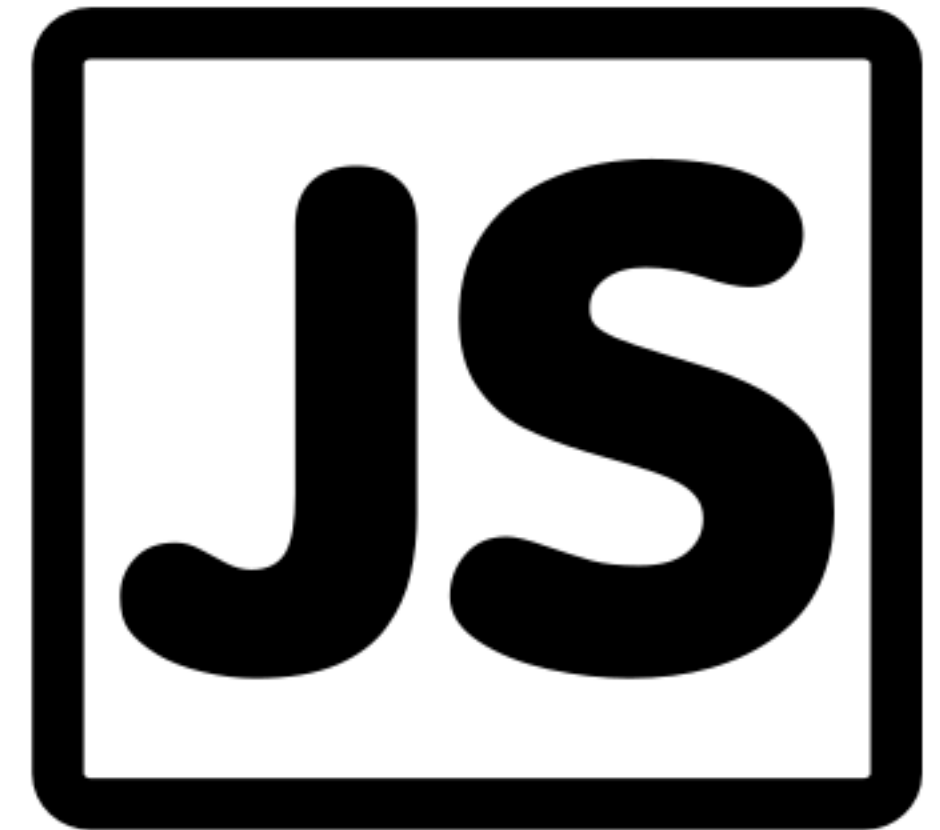


# How JavaScript Is Used Today

There's lots of good uses and lots of bad uses

References:

1: <https://w3techs.com/technologies/details/cp-javascript>





# Web Cookies

**1994:** Cookies are invented

**1997:** Cookies become an official part of the Web



# HollyWeb

**2017:** World Wide Web Consortium sells out the Web to Hollywood

Digital restrictions management = digital handcuffs

See: <https://www.defectivebydesign.org/drm-in-web-standards>

# The Bloated Web

Competition pushed the Web to have 1337 specified features with new features being added all the time

There's such a thing as too many features

Summary of: <https://drewdevault.com/2020/03/18/Reckless-limitless-scope.html>

Source license: [CC-BY-SA 2.0](https://creativecommons.org/licenses/by-sa/2.0/)

Source author: Drew Devault

# The Insecure Web

- The Web is responsible for over 9,000 vulnerabilities<sup>1</sup>
- The Web brings vulnerabilities, privacy invasion, and inaccessibility to all the applications using it

References:

1: <https://cve.mitre.org>

# The Privacy-Invading Web

- The Web has so many ways to invade user privacy I can't list them all
- Privacy invasion on the Web is pervasive. Almost all popular websites track users in some way

**Web-Like Protocols:  
Watch Amin Bandali's Talk Tomorrow!**

# Browser Extensions

# GNU LibreJS

## Categories:

- Content blocker

Summary of: [https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison\\_with\\_other\\_extensions#LibreJS](https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison_with_other_extensions#LibreJS)

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Source authors: Jahoti, Nicholas Johnson, Wojciech Kosior



# NoScript

## Categories:

- Content blocker
- Security suite

Summary of: [https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison\\_with\\_other\\_extensions#NoScript](https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison_with_other_extensions#NoScript)

Source license: [CC-BY-SA 4.0](#) or [GFDLv1.3+](#)

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# uBlock Origin

## Categories:

- Content blocker

Summary of: [https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison\\_with\\_other\\_extensions#uBlock-Origin](https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison_with_other_extensions#uBlock-Origin)

Source license: [CC-BY-SA 4.0](#) or [GFDLv1.3+](#)

Source authors: Jahoti, Nicholas Johnson, Wojciech Kosior

# uMatrix

## Categories:

- Content blocker

Summary of: [https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison\\_with\\_other\\_extensions#uMatrix](https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison_with_other_extensions#uMatrix)

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Source authors: Jahoti, Nicholas Johnson, Wojciech Kosior

# JShelter

## Categories:

- Security suite
- Anti-fingerprinting suite

Summary of: [https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison\\_with\\_other\\_extensions#JShelter](https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison_with_other_extensions#JShelter)

Source license: [CC-BY-SA 4.0](#) or [GFDLv1.3+](#)

Source authors: Jahoti, Nicholas Johnson, Wojciech Kosior

# Greasemonkey

## Categories:

- User script manager

Link: <https://greasyfork.org>

Summary of: [https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison\\_with\\_other\\_extensions#Greasemonkey](https://hydrillabugs.koszko.org/projects/haketilo/wiki/Comparison_with_other_extensions#Greasemonkey)

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Source authors: Jahoti, Nicholas Johnson, Wojciech Kosior

# Violentmonkey

## Categories:

- User script manager

Summary of: [https://hydrillabugs.koszko.org/projects/haketi/wiki/Comparison\\_with\\_other\\_extensions#ViolentMonkey](https://hydrillabugs.koszko.org/projects/haketi/wiki/Comparison_with_other_extensions#ViolentMonkey)

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Source authors: Jahoti, Nicholas Johnson, Wojciech Kosior

# Haketilo

## Categories:

- Content blocker
- User script manager

See: <https://hydrillabugs.koszko.org/projects/haketilo/wiki>

# Haketilo Demo



# Haketiło's Use Cases

Haketiło does two basic things:

- Blocks proprietary JavaScript
- Executes free, user-controlled JavaScript

Summary of: [https://hydrillabugs.koszko.org/projects/haketiło/wiki/Use\\_cases](https://hydrillabugs.koszko.org/projects/haketiło/wiki/Use_cases)

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Source authors: Jahoti, Wojciech Kosior

# Haketilo's Social Goals

- Incentivize website owners to design their sites ethically
- Reward volunteer contributions
- Give users ultimate control over their web browsing

Summary of: [https://hydrillabugs.koszko.org/projects/haketilo/wiki/Social\\_hurdles](https://hydrillabugs.koszko.org/projects/haketilo/wiki/Social_hurdles)

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Source authors: Jahoti, Wojciech Kosior

# Haketiło's Challenges – Uncooperative Site Owners

Website contains proprietary JavaScript → custom script incoming

Website owner redesigns their site → initiate cat-and-mouse game<sup>1</sup>

1: See [Youtube-dl](#)

Summary of: [https://hydrillabugs.koszko.org/projects/haketiło/wiki/Social\\_hurdles](https://hydrillabugs.koszko.org/projects/haketiło/wiki/Social_hurdles)

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Source authors: Jahoti, Wojciech Kosior

# Haketilo's Challenges - Funding

- NLnet
- Donations (multiple different interests)
- Users who want a particular custom script can put a bounty on it
- Still mainly volunteer-driven

Summary of: [https://hydrillabugs.koszko.org/projects/haketilo/wiki/Social\\_hurdles](https://hydrillabugs.koszko.org/projects/haketilo/wiki/Social_hurdles)

Source license: [CC-BY-SA 4.0](#) or [GFDLv1.3+](#)

Source authors: Jahoti, Wojciech Kosior

# Haketilo's Future Plans

- Port to Manifest v3

Summary of: [https://hydrillabugs.koszko.org/projects/haketilo/wiki/Future\\_plans](https://hydrillabugs.koszko.org/projects/haketilo/wiki/Future_plans)

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Haketilo Needs Your ~~Help~~

Feedback / Bug Reports